

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

Claims 1-26. (Previously Cancelled)

27. (Currently Amended) A ~~Management Entity having a Provisioning~~  
~~Node-side intended for provisioning a service towards a Network Element~~ management  
entity having a provisioning node side for provisioning a service towards a network  
element by sending provisioning orders, the Management Entity management entity  
supporting a Subscription Management Generic Interface (SuM-GI) that includes a  
SuM-GI Data Model, the management entity ~~Management Entity~~ comprising:  
    a number of protocol adapters, each protocol adapter for communication with a  
specific protocol technology, at least one Protocol Adapter protocol adapter for  
communicating with a specific protocol technology used at the ~~Network~~ network  
element; and  
    a SuM-GI Manager manager for sending provisioning orders to create and  
manage subscriptions to services in the ~~Network Element~~ network element through the  
one protocol adapter with a number of SuM-GI Operations operating on Objects  
Classes included in the SuM-GI Data Model, and independently from an internal data  
model used by the ~~Network Element~~ network element; and

means for communicating over a communication network with a mapping module in the Network Element for mapping a provisioning order received from the SuM-GI Manager into a number of internal operations operating on an internal data model supported by the Network Element and for the Network Element to register itself at the SuM-GI Manager and for establishing the specific protocol technology used at the Network Element.

and wherein the SuM-GI Data Model comprises at least one Object Class selected from ~~a group of Object Classes:~~

SubscriptionIRP object class, for indicating to ~~[[a]]~~ the SuM-GI manager Manager ~~the a~~ SuM-GI version supported by each particular SuM-GI agent Agent in a managed entity Managed-Entity, and thus arranged for comprising a list of the SuM-GI versions supported by known SuM-GI agents Agents;

SubscriptionFunction object class, for sub-classing Subscription, Subscriber, User, and UserServicePreferences related object classes and arranged for providing attributes that are common to underlying managed Managed-Object Classes; and

ServiceProviderFunction object class, for sub-classing ProvidedService related object classes and arranged for providing attributes that are common to underlying managed Managed-Object Classes.

28. **(Currently Amended)** The management entity Management-Entity of claim 27, wherein the SuM-GI Data Model further comprises at least one managed Managed Object Class selected from:

Subscription object class, for modeling the agreement or contract established between a subscriber and a service provider and arranged for containing all the information related with the subscription;

Subscriber object class, for identifying a subscriber holding a subscription with a service provider for a given service and arranged for registering a number of users allowed to use said given service;

ProvidedService object class, for modeling a service provider inventory of offered services and arranged for maintaining applicable capabilities of said offered services;

User object class, for identifying a user associated to a given subscriber and arranged for customizing particular user preferences for a given service; and

UserServicePreferences object class, for allowing a number of users associated with a subscriber to have particular service preferences and arranged for containing different service capabilities enabled for each user.

29. **(Currently Amended)** A network element ~~Network-Element~~ where a service is provisioned to subscribers of a communication network, the network element ~~Network-Element~~ supporting a Subscription Management Generic Interface (SuM-GI) that includes a SuM-GI Data Model, the network element ~~Network-Element~~ comprising:  
at least one protocol adapter ~~Protocol-Adapter~~ for communicating over a communications network with a particular protocol technology used by a management entity ~~Management-Entity~~ to send provisioning orders;  
a SuM-GI agent ~~Agent~~ for receiving provisioning orders with a number of SuM-GI Operations operating on Objects Classes included in the SuM-GI Data Model; and

a Mapping Module for mapping received instances of the SuM-GI Data Model into an internal data model, registering itself at the Management Entity and establishing the particular protocol technology;

and wherein the SuM-GI Data Model comprises at least one Object Class selected from ~~a group of Object Classes~~:

SubscriptionIRP object class, for indicating to a SuM-GI manager ~~Manager~~ the SuM-GI version supported by each particular SuM-GI agent ~~Agent~~ in a managed entity ~~Managed Entity~~, and thus arranged for comprising a list of the SuM-GI versions supported by known SuM-GI agents ~~Agents~~;

SubscriptionFunction object class, for sub-classing Subscription, Subscriber, User, and UserServicePreferences related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~ Object Classes; and

ServiceProviderFunction object class, for sub-classing ProvidedService related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~ Object Classes.

30. **(Currently Amended)** The network element ~~Network Element~~ of claim 29 wherein the SuM-GI Data Model further comprises at least one managed ~~Managed~~ Object Class selected from ~~a group of Object Classes~~:

Subscription object class, for modeling the agreement or contract established between a subscriber and a service provider and arranged for containing all the information related with the subscription;

Subscriber object class, for identifying a subscriber holding a subscription with a service provider for a given service and arranged for registering a number of users allowed to use said given service;

ProvidedService object class, for modeling a service provider inventory of offered services and arranged for maintaining applicable capabilities of said offered services;

User object class, for identifying a user associated to a given subscriber and arranged for customizing particular user preferences for a given service; and

UserServicePreferences object class, for allowing a number of users associated with a subscriber to have particular service preferences and arranged for containing different service capabilities enabled for each user.

31. **(Currently Amended)** A method for provisioning services to subscribers of a communication network, the method applying between a management entity ~~Management-Entity~~ that has a provisioning node ~~Provisioning-Node~~ side intended for provisioning a service, and a number of managed entities ~~Managed-Entities~~ each one having a provisioned node ~~Provisioned-Node~~ side intended for receiving provisioning orders from the management entity ~~Management-Entity~~, the method comprising the steps of:

registering each Managed Entity of the number of Managed Entities with the Management Entity and establishing a specific protocol to acknowledging of each Managed Entity with the Management Entity;

assigning a specific protocol technology for communication between a Subscription Management Generic Interface (SuM-GI) manager ~~Manager~~ at a provisioning node ~~Provisioning-Node~~ side and each SuM-GI agent ~~Agent~~ at respective provisioned node ~~Provisioned-Node~~ sides;

sending provisioning orders from the SuM-GI manager ~~Manager~~ towards at least one SuM-GI agent ~~Agent~~ with a number of SuM-GI Operations intended for operating on Object Classes included in a SuM-GI Data Model;

receiving the provisioning orders at a SuM-GI agent ~~Agent~~ in the provisioned node ~~Provisioned-Node~~ side of at least one managed ~~Managed~~ entity with a number of SuM-GI Operations operating on Object Classes included in the SuM-GI Data Model; and

mapping in this said provisioned node ~~Provisioned-Node~~ side the provisioning order received from the SuM-GI manager ~~Manager~~ with the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model into a number of internal operations operating on an internal data model supported by the managed entity ~~Managed-Entity~~;

and wherein the SuM-GI Data Model comprises at least one Object Class selected from a group of Object Classes that includes:

SubscriptionIRP object class, for indicating to a SuM-GI manager ~~Manager~~ the SuM-GI version supported by each particular SuM-GI agent ~~Agent~~ in a managed entity ~~Managed-Entity~~, and thus arranged for comprising a list of the SuM-GI versions supported by known SuM-GI agents ~~Agents~~;

SubscriptionFunction object class, for sub-classing Subscription, Subscriber, User, and UserServicePreferences related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~ Object Classes; and

ServiceProviderFunction object class, for sub-classing Provided Service related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~-Object Classes.

32. **(Currently Amended)** The method of claim 31, wherein upon receipt of a provisioning order from a Subscription Management Generic Interface (SuM-GI) manager ~~Manager~~ in a SuM-GI agent ~~Agent~~ at a sub-network manager ~~Sub-Network Manager~~, the method further comprising the steps of:

transferring the provisioning order received from a first SuM-GI manager ~~Manager~~ at a provisioning node ~~Provisioning-Node~~ side of a management entity ~~Management-Entity~~ or higher hierarchical managed entity ~~Managed-Entity~~ towards a second SuM-GI manager ~~Manager~~ at a provisioning node ~~Provisioning-Node~~ side of the current node;

assigning a specific protocol technology for communication between the second SuM-GI manager ~~Manager~~ at the provisioning node ~~Provisioning-Node~~-side of the current node and each SuM-GI agent ~~Agent~~ at respective provisioned node ~~Provisioned Node~~ sides of lower hierarchical managed entities ~~Managed-Entities~~; and

sending provisioning orders from the second SuM-GI manager ~~Manager~~ towards at least one SuM-GI agent ~~Agent~~ at a provisioned node ~~Provisioned-Node~~ side of a lower hierarchical managed entity ~~Managed-Entity~~ with a number of SuM-GI Operations for operating on Object Classes included in a SuM-GI Data Model.

33. **(Previously Cancelled)**

34. (Previously Cancelled)

35. **(Currently Amended)** The method of claim 31, wherein the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Data Model further comprising at least one managed Managed Object Class selected from a group of Object Classes including:

Subscription object class, for modeling the agreement or contract established between a subscriber and a service provider and arranged for containing all the information related with the subscription;

Subscriber object class, for identifying a subscriber holding a subscription with a service provider for a given service and arranged for registering a number of users allowed to use said given service;

ProvidedService object class, for modeling a service provider inventory of offered services and arranged for maintaining applicable capabilities of said offered services;

User object class, for identifying a user associated to a given subscriber and arranged for customizing particular user preferences for a given service; and

UserServicePreferences object class, for allowing a number of users associated with a subscriber to have particular service preferences and arranged for containing different service capabilities enabled for each user.

36. **(Currently Amended)** The method of claim 31, wherein the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Operation set



for acting on a SuM-GI Data Model and comprising any ~~Operations, or combinations thereof, selected~~ Operations selected from group of operations:

creating, modifying, removing and getting Subscriber;  
creating, modifying, removing and getting User;  
creating, modifying, removing and getting Provided Service.  
creating, modifying, removing and getting Subscription;  
adding, removing and getting User to or from a given Subscription; and  
setting and getting User Service Preferences for a user under a given Subscription;

37. (Previously Cancelled)

38. (Previously Presented) The method of claim 31, wherein the Subscription Management Generic Interface (SuM-GI) is arranged for holding specific attributes or characteristics of those objects included in the SuM-GI Object Model in a generic information placeholder associated to each particular object.

39. (Currently Amended) The method of claim 38, wherein the Subscription Management Generic Interface (SuM-GI) is arranged for allowing each individual SuM-GI agent Agent to determine whether or not each particular attribute in a list of attributes is applicable in the node where the SuM-GI agent Agent resides, the applicability depending on a specific internal data model in said node.

40. (Currently Amended) In a communication network, a Subscription Management Generic Interface (SuM-GI) comprising:

a SuM-GI Data Model and SuM-GI Operations for provisioning services to subscribers of the communication network wherein said Subscription Management Generic Interface (SuM-GI) operates in accordance with an Integration Reference Point (IRP) specification within an IRP Generic Network Resource Model, wherein the SuM-GI Data Model comprises at least one Object Class selected from a group of object classes:

SubscriptionIRP object class, for indicating to a SuM-GI manager ~~Manager~~ the SuM-GI version supported by each particular SuM-GI agent ~~Agent~~ in a managed entity ~~Managed Entity~~, and thus arranged for comprising a list of the SuM-GI versions supported by known SuM-GI agents ~~Agents~~;

SubscriptionFunction object class, for sub-classing Subscription, Subscriber, User, and UserServicePreferences related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~ Object Classes; and

ServiceProviderFunction object class, for sub-classing ProvidedService related object classes and arranged for providing attributes that are common to underlying managed ~~Managed~~ Object Classes.

41. (Currently Amended) The management entity ~~Management Entity~~ of claim 27, wherein the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Operation set for acting on the SuM-GI Data Model and comprising any Operations, ~~or combinations thereof~~, selected from groups of operations:

creating, modifying, removing and getting Subscriber;  
creating, modifying, removing and getting User;  
creating, modifying, removing and getting Provided Service.  
creating, modifying, removing and getting Subscription;  
adding, removing and getting User to or from a given Subscription; and  
setting and getting User Service Preferences for a user under a given Subscription.

42. **(Currently Amended)** The management entity ~~Management-Entity~~ of claim 27, wherein both SubscriptionFunction and ServiceProviderFunction object classes inherit from a managed Managed Object Class (ManagedElement) representing telecommunication equipment or network element related functions.

43. **(Currently Amended)** The network element ~~Network-Element~~ of claim 29, wherein the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Operation set for acting on the SuM-GI Data Model and comprising Operations selected from ~~groups of operations~~:

creating, modifying, removing and getting Subscriber;  
creating, modifying, removing and getting User;  
creating, modifying, removing and getting Provided Service.  
creating, modifying, removing and getting Subscription;  
adding, removing and getting User to or from a given Subscription; and

setting and getting User Service Preferences for a user under a given Subscription.

44. (Currently Amended) The network element ~~Network Element~~ of claim 29, wherein both SubscriptionFunction and ServiceProviderFunction object classes inherit from a managed ~~Managed~~ Object Class (ManagedElement) representing telecommunication equipment or network element related functions.

45. (Currently Amended) The method of claim 31, wherein at least one managed entity ~~Managed Entity~~ is a network element ~~Network Element~~ in which a given service is provisioned, and wherein a number of managed entities ~~Managed Entities~~ may optionally form a hierarchical sub-network manager ~~Sub Network Manager~~ structure interposed between a centralized management entity ~~Management Entity~~ acting as a network manager ~~Network Manager~~, and a number of network elements ~~Network Elements~~, each sub-network manager ~~Sub Network Manager~~ comprising:

a SuM-GI manager ~~Manager~~, a SuM-GI agent ~~Agent~~ and a number of protocol adapters ~~Protocol Adapters~~, thus presenting a provisioned node ~~Provisioned Node~~ side towards a provisioning node ~~Provisioning Node~~ side at a network manager ~~Network Manager~~ or at another sub-network manager ~~Sub Network Manager~~, and a provisioning node side ~~Provisioning Node Side~~ towards a provisioned node ~~Provisioned Node~~ side at a network element ~~Network Element~~ or at another sub-network manager ~~Sub Network Manager~~.

46. **(Currently Amended)** The use of claim 40, wherein both  
SubscriptionFunction and ServiceProviderFunction object classes inherit from a  
managed Managed-Object Class "ManagedElement" representing telecommunication  
equipment or network element related functions.